Connecting the Communicator to the Serial Port

1 Position the 4 small coloured switches on the side of the communicator as follows (see Fig. 4):

Switches 1 & 2 ON

Switches 3 & 4 OFF

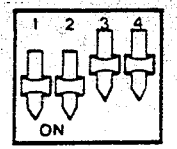


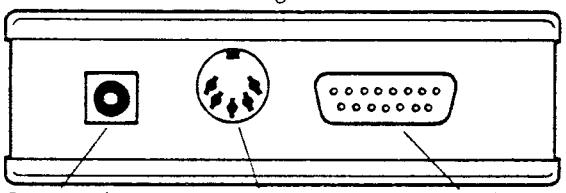
Fig. 4

Fig. 5

2 Set both switches underneath the turtle to OFF (see Fig. 2)

3 Insert the end of the communicator lead which corresponds to Fig. 5 into the serial socket on the communicator (see Fig. 6).

Fig. 6



4 Insert the end of the communicator lead which corresponds to Fig. 7 into the RS423 socket at the back of the BBC microcomputer WITH THE NOTCH FACING TOWARDS THE RGB SOCKET (on the left hand side when viewed from the rear of the microcomputer). Please note, care should be taken during insertion as *it is possible for the communicator lead connector to be plugged in the wrong way round,* preventing the turtle from operating.

5 Switch on the microcomputer.

6 Plug the Valiant power adaptor into your mains supply and turn on the power.

7 Push the jack plug on the end of the power adaptor's lead firmly into the power socket at the rear of the communicator (see Fig. 6).

8 If the red light behind the red communicator screen does not come on, consult the Troubleshooting section of the Valiant Turtle User Guide.

9 Switch on the turtle.

Connecting the Communicator to the Parallel Port

1 Switch the computer off.

2 Position the four coloured switches on the side of the communicator as follows:

Switch 1 OFF

Switches 2, 3 and 4 ON. (See Fig. 8)

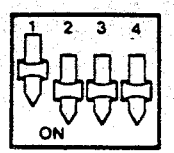


Fig. 8

3 Set both small switches on the bottom of the turtle to OFF. (See Fig. 2)

4 Connect the end of the interface cable with 15 holes (See Fig. 9) to the D-shaped socket at the back of the communicator. (See Fig. 6)

Fig. 7

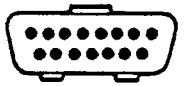


Fig.9

5 Connect the other end of the cable to the socket marked 'User Port' located underneath the computer.

6 Switch on the computer.

7 Plug the power adaptor into the mains and push the jack plug firmly in the power socket at the back of the communicator.

8 If the red light in the front of the communicator does not illuminate, consult the Troubleshooting section in the Turtle User Guide.

9 Switch on the Turtle.

How to use your VALIANT TURTLE with the BBC MICROCOMPUTER

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Starting the Valiant Turtle with the BBC Microcomputer

The Valiant Turtle can run from most microcomputers. It is interfaced to various LOGO and LOGO type languages. The performance of the turtle is affected by the software. To obtain optimum performance you should use a full implementation of LOGO.

These instructions cover the operation of the Valiant Turtle with the Acornsoft LOGO, Logotron's Standard L.C.S.I. LOGO, and the Valiant Turtle Mover Program and DART.

Instructions covering the use of the Valiant Turtle with the Open University and Logo Software Limited's LOGOs for the BBC microcomputer will be available from December 1984. Please refer to your dealer for details.

If the turtle does not respond after you have carried out the various instructions, consult the Troubleshooting section in the Valiant Turtle User Guide.

Starting the Valiant Turtle with the Valiant Turtle Mover Program

1 Follow the instructions in the section entitled "CONNECTING THE COMMUNICATOR TO THE SERIAL PORT".
2 Insert the Valiant Turtle Software disc or tape.
3 Type CHAIN "TURTLE" and press the RETURN key. With the disc version you can save time by holding down the SHIFT key and then pressing BREAK.
4 The instructions for running the turtle will appear on the screen.

NOTE: With the disc version of the Valiant Turtle Mover Program only if you have any probiems keep the disc in the disc drive, type HELP and then press RETURN.

Starting the Valiant Turtle with Logotron's standard L.C.S.I. LOGO

1 Follow the instructions in the section entitled "CONNECTING THE COMMUNICATOR TO THE PARALLEL PORT".
2 Type *LOGO and press the RETURN key.
3 Insert the Valiant Turtle Software disc or tape.
4 Type USE "VALIAN1 and press the RETURN key.
5 The turtle is ready to use.

In Logotron's Standard L.C.S.I. LOGO there are some new primitives for the Valiant Turtle.

TURTLEOFF – Can be used to tell the Valiant Turtle to ignore commands. The commands are only followed by the screen turtle.

TURTLEON – This primitive tells the Valiant Turtle to follow commands again.

SCALE – This returns a number which tells you the size of the turtle's steps in millimetres.

SETSCALE – This allows you to set the size of the turtle's steps in millimetres – only whole numbers of millimetres are possible.

Starting the Valiant Turtle using DART

If you have DART Version 2.4 or later versions:

Type CHAIN "DART". DART will then ask you to select which floor turtle you want to use. Select 3 for the Valiant Turtle and follow the instructions in the program. You will finish up with a file saved onto disc or tape called DART3.

If you have DART Version 2.3:

Type LOAD "DART". Then type

```
22020A%=13:CALL&FFEE:PROCdy(100):A%=85:
CALL&FFEE:PROCdy(100):A%=0:CALL&FFEE:
A%=-p%*16:CALL&FFEE:*FX3,0
```

then type SAVE "DART". Now follow the instructions above for DART Version 2.4 or later versions.

If you have DART Version 2.2 or earlier versions, you will not be able to drive the Valiant Turtle from your copy of DART. Please contact the Advisory Unit for Computer-Based Education, telephone (07072) 65443, who will advise you about obtaining an up to date version.

The steps outlined above need only be performed once. When they have been completed and when you subsequently want to use the Valiant Turtle, please follow the instructions below:

1 Follow the instructions in the section entitled "CONNECTING THE COMMUNICATOR TO THE SERIAL PORT".
2 Insert the DART disc.
3 Type CHAIN "DART" and press the RETURN key.
4 Follow the instructions on the screen to synchronise DART with the Valiant Turtle.
5 Type CHAIN "DART3" and press the RETURN key.
6 Type TURTLE ON and press the RETURN key.
7 The turtle is now ready to use.

Starting the Valiant Turtle with Acornsoft LOGO

1 Follow the instructions in the section "CONNECTING THE COMMUNICATOR TO THE PARALLEL PORT", but set the communicator switches as follows:

Switches 1 and 2 OFF
Switches 3 and 4 ON (See Fig. 1)

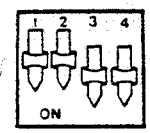

Fig. 1

2 Set both small switches underneath the Valiant Turtle to OFF (See Fig. 2)

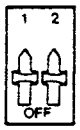

Fig. 2

3 Type *LOGO and press the RETURN key.
4 Insert the disc or tape provided with Acornsoft LOGO.
5 Type LOAD "VALIANT and press the RETURN key.
6 Type FLOOR and press the RETURN key.
7 The turtle is ready to use.

Using Multiple Turtles with Acornsoft LOGO

You can program up to 4 Valiant Turtles independently using the Acornsoft LOGO. Follow the instructions above but set the small switches underneath the turtle as follows (see Fig. 3):

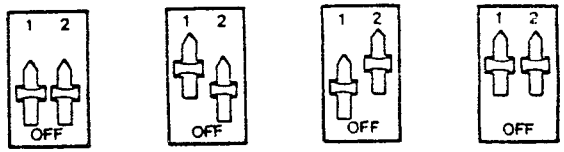

Fig. 3

Switches 1 & 2 OFF (Corresponds to screen turtle 0)	Switch 1 ON, switch 2 OFF (Corresponds to screen turtle 1)	Switch 1 OFF, switch 2 ON (Corresponds to screen turtle 2)	Switches 1 & 2 ON (Corresponds to screen turtle 3)

Consult Chapter 12 in the Acornsoft LOGO Manual for how to program multiple turtles.

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STARTING THE VALIANT TURTLE WITH LSL LOGO

1 Follow the instructions on the section entitled
  "CONNECTING THE COMMUNICATOR TO THE SERIAL PORT".

2 Insert the Valiant Turtle interface disk.

3 Enter *EXEC LSL

4 The message 'VALIANT TURTLE  driver is loaded'
  will appear.

5 Ensure that the red light behind the communicator
  screen has gone out.  If not, consult the Trouble
  Shooting section of the Valiant Turtle User Guide.

6 Your Valiant Turtle is now ready for use.
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